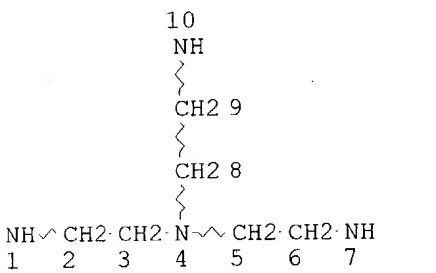
```
=> d que l14
L4          1121 SEA FILE=HCAPLUS ABB=ON  PLU=ON  POLYETHYLENIMINE/CT
L5             2 SEA FILE=REGISTRY ABB=ON  PLU=ON  POLYETHYLENIMINE/CN
L7             7 SEA FILE=REGISTRY POLYLINK L5
L8          9470 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L7
L9          1121 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L4 AND L8
L11               STR
```




```
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  10

STEREO ATTRIBUTES: NONE
L13         1536 SEA FILE=REGISTRY SSS FUL L11
L14            7 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9 AND L13


=> d l14 ibib abs hitstr 1-7

L14  ANSWER 1 OF 7  HCAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:         2004:452925  HCAPLUS
DOCUMENT NUMBER:          141:17570
TITLE:                    Intravascular delivery of nonviral nucleic acid
INVENTOR(S):              Hagstrom, James E.; Wolff, Jon A.; Monahan, Sean D.;
                          Rozema, David B.; Budker, Vladimir G.; Slattum, Paul
                          M.; Lewis, David L.
PATENT ASSIGNEE(S):       USA
SOURCE:                   U.S. Pat. Appl. Publ., 35 pp., Cont.-in-part of U.S.
                          Ser. No. 447,966.
                          CODEN: USXXCO
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   15
PATENT INFORMATION:
```

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004106567	A1	20040603	US 2003-609938	20030630
US 2001008882	A1	20010719	US 1999-391260	19990907
US 2001004636	A1	20010621	US 1999-447966	19991123
US 6627616	B2	20030930		
WO 2003040375	A1	20030515	WO 2002-US17556	20020530

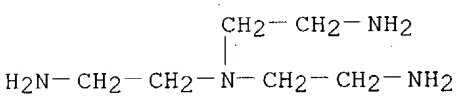
W: JP
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR

US 2003216347	A1	20031120	US 2003-600098	20030620
PRIORITY APPLN. INFO.:			US 1999-391260	A2 19990907
			US 1999-447966	A2 19991123
			US 1995-571536	A 19951213
			US 1997-975573	A1 19971121
			US 1999-121730P	P 19990226
			US 1999-146564P	P 19990730
			US 2001-12804	A 20011106

AB The process comprises designing a polynucleotide, such as an siRNA, for transfection. The polynucleotide is inserted into a mammalian vessel such as an artery. Prior to insertion, subsequent to insertion, or concurrent with insertion, volume in the vessel is increased allowing the polynucleotide delivery to the parenchymal cell. In one preferred embodiment, a process is described for delivering a polynucleotide into a parenchymal cell of a mammal, comprising making a polynucleotide such as a nucleic acid, then inserting the polynucleotide into a mammalian vessel (e.g. a blood vessel) and increasing the permeability of the vessel, finally delivering the polynucleotide to the parenchymal cell thereby altering endogenous properties of the cell. Increasing the permeability of the vessel consists of increasing pressure against vessel walls. Increasing the pressure consists of increasing a volume of fluid within the vessel. Increasing the volume consists of inserting the polynucleotide in a solution into the vessel wherein the solution contains a compound which complexes with the polynucleotide. Preparation of polymers (e.g. L-cystine-1,4-bis(3-aminopropyl)piperazine copolymer) complexable with polynucleotides is also included.

IT **4097-89-6,** Tris(2-aminoethyl)amine
RL: RCT (Reactant); RACT (Reactant or reagent)
(intravascular delivery of nonviral nucleic acid)

RN 4097-89-6 HCAPLUS
CN 1,2-Ethanediamine, N,N-bis(2-aminoethyl)- (9CI) (CA INDEX NAME)

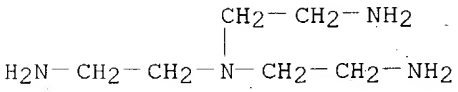


IT **289888-10-4P 289888-12-6P 289888-15-9P**
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(intravascular delivery of nonviral nucleic acid)

RN 289888-10-4 HCAPLUS
CN Benzoic acid, 3,3'-dithiobis[6-nitro-, polymer with N-(2-aminoethyl)-N'-[2-[(2-aminoethyl)amino]ethyl]-1,2-ethanediamine and N,N-bis(2-aminoethyl)-1,2-ethanediamine (9CI) (CA INDEX NAME)

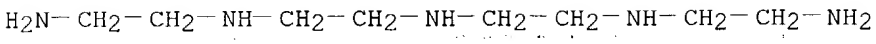
CM 1

CRN 4097-89-6
CMF C6 H18 N4



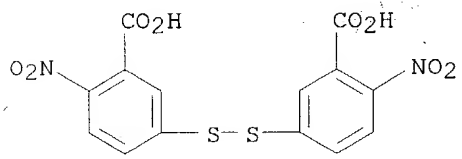
CM 2

CRN 112-57-2
CMF C8 H23 N5



CM 3

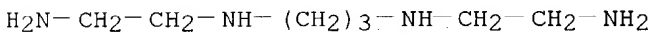
CRN 69-78-3
CMF C14 H8 N2 O8 S2



RN 289888-12-6 HCAPLUS
CN Benzoic acid, 3,3'-dithiobis[6-nitro-, polymer with N,N-bis(2-aminoethyl)-1,2-ethanediamine and N,N'-bis(2-aminoethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)

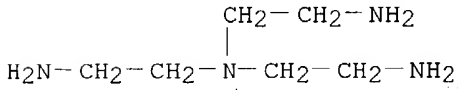
CM 1

CRN 4741-99-5
CMF C7 H20 N4



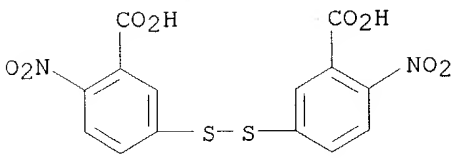
CM 2

CRN 4097-89-6
CMF C6 H18 N4



CM 3

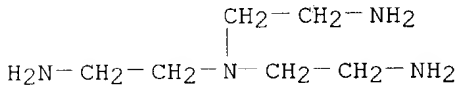
CRN 69-78-3
CMF C14 H8 N2 O8 S2



RN 289888-15-9 HCAPLUS
CN Benzoic acid, 3,3'-dithiobis[6-nitro-, polymer with N,N-bis(2-aminoethyl)-1,2-ethanediamine and 3,6,9,12-tetraazatetradecane-1,14-diamine (9CI) (CA INDEX NAME)

CM 1

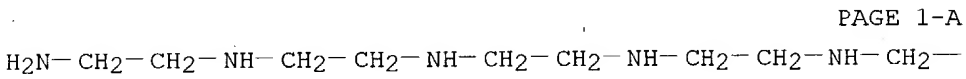
CRN 4097-89-6
CMF C6 H18 N4



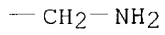
CM 2

CRN 4067-16-7
CMF C10 H28 N6

PAGE 1-A

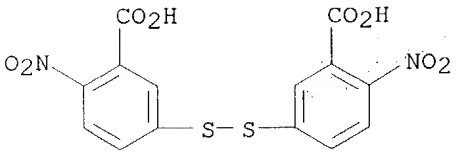


PAGE 1-B



CM 3

CRN 69-78-3
CMF C14 H8 N2 O8 S2

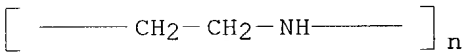


IT **9002-98-6 26913-06-4**, Poly[imino(1,2-ethanediyl)]
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(intravascular delivery of nonviral nucleic acid)
RN 9002-98-6 HCAPLUS
CN Aziridine, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 151-56-4
CMF C2 H5 N

RN 26913-06-4 HCAPLUS
CN Poly[imino(1,2-ethanediyl)] (9CI) (CA INDEX NAME)



L14 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:985308 HCAPLUS
DOCUMENT NUMBER: 141:59370
TITLE: Combined suicide gene therapy for pancreatic peritoneal carcinomatosis using BGTC liposomes
AUTHOR(S): Hajri, Amor; Wack, Severine; Lehn, Pierre; Vigneron, Jean-Pierre; Lehn, Jean-Marie; Marescaux, Jacques; Aprahamian, Marc
CORPORATE SOURCE: INSERM U375, IRCAD, Strasbourg, 67091, Fr.
SOURCE: Cancer Gene Therapy (2004), 11(1), 16-27
CODEN: CGTHEG; ISSN: 0929-1903
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Peritoneal dissemination is a common end-stage complication of pancreatic cancer for which novel therapeutic modalities are actively investigated, as there is no current effective therapy. Thus, we evaluated, in a mouse model of pancreatic peritoneal carcinomatosis, the therapeutic potential of a novel nonviral gene therapy approach consisting of bis-guanidinium-tren-cholesterol (BGTC)-mediated lipofection of a combined suicide gene system. Human BxPC-3 pancreatic cells secreting the carcinoembryonic antigen (CEA) tumor marker were injected into the peritoneal cavity of nude mice. After 8 days, i.p. (i.p.) lipofection was performed using BGTC/DOPE cationic liposomes complexed with plasmids

encoding the two prodrug-activating enzymes Herpes Simplex Virus thymidine kinase and Escherichia coli cytosine deaminase, the latter being expressed from a bicistronic cassette also encoding E. coli uracil phosphoribosyltransferase. Administration of the lipoplexes was followed by treatment with the corresponding prodrugs ganciclovir and 5-fluorocytosine. The results presented herein demonstrate that BGTC/DOPE liposomes can efficiently mediate gene transfection into peritoneal tumor nodules. Indeed, HSV-TK mRNA was detected in tumor nodule tissues by semiquant. reverse transcription-polymerase chain reaction anal. In addition, green fluorescent protein (GFP) fluorescence and X-gal staining were observed in the peritoneal tumor foci following lipofection of the corresponding EGFP and LacZ reporter genes. These expression analyses also showed that transgene expression lasted for about 2 wk and was preferential for the tumor nodules, this tumor preference being in good agreement with the absence of obvious treatment-related toxicity. Most importantly, mice receiving the full treatment scheme (BGTC liposomes, suicide genes and prodrugs) had significantly lower serum CEA levels than those of the various control groups, a finding indicating that peritoneal carcinomatosis progression was strongly reduced in these mice. In conclusion, our results demonstrate the therapeutic efficiency of BGTC-mediated i.p. lipofection of a combined suicide gene system in a mouse peritoneal carcinomatosis model and suggest that BGTC-based prodrug-activating gene therapy approaches may constitute a potential treatment modality for patients with peritoneal carcinomatosis and minimal residual disease.

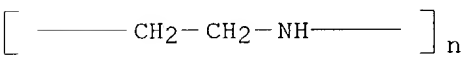
IT **9002-98-6**, Polyethylenimine **26913-06-4**, Polyethylenimine **182056-06-0**, BGTC
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(combined suicide gene therapy for pancreatic peritoneal carcinomatosis using bis-guanidinium-tren-cholesterol (BGTC) liposomes)

RN 9002-98-6 HCAPLUS
CN Aziridine, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 151-56-4
CMF C2 H5 N

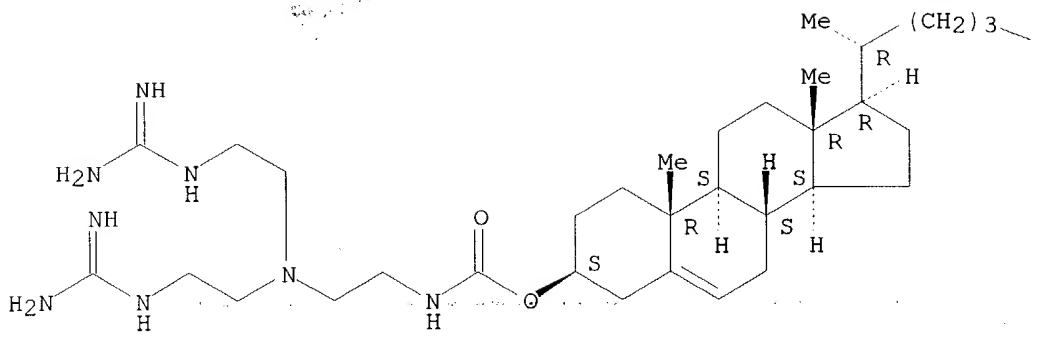
RN 26913-06-4 HCAPLUS
CN Poly[imino(1,2-ethanediyl)] (9CI) (CA INDEX NAME)



RN 182056-06-0 HCAPLUS
CN Cholest-5-en-3-ol (3β)-, [2-[bis[2-[(aminoiminomethyl)amino]ethyl]amino]ethyl]carbamate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



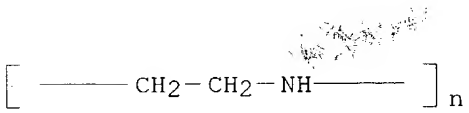
PAGE 1-B

CHMe2

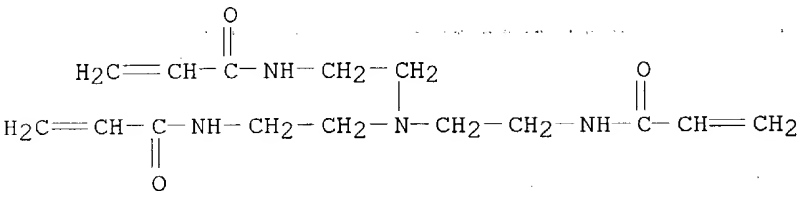
REFERENCE COUNT: 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:963155 HCAPLUS
DOCUMENT NUMBER: 138:304544
TITLE: Synthesis, characterization, and modelling of novel multifunctional acryloyl-based monomers: an experimental and computational study
AUTHOR(S): Patras, Georgia; Qiao, Greg G.; Solomon, David H.; Koch, Rainer
CORPORATE SOURCE: The Polymer Science Group, Department of Chemical Engineering, The University of Melbourne, Parkville, 3010, Australia
SOURCE: Australian Journal of Chemistry (2002), 55(10), 675-680
CODEN: AJCHAS; ISSN: 0004-9425
PUBLISHER: CSIRO Publishing
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Several novel multifunctional monomers with at least three reactive N-acryloyl double bonds have been synthesized and fully characterized. Quantum-chemical calcns. and NMR (NMR) spectroscopy have been used to predict the structural dissymmetry of these monomers: the simulation of conformers and the NMR spectrum of monomer (3) allows the explanation of the observed 13C NMR spectra as well as a comparison of the performance of several methods for calculating chemical shifts.
IT **26913-06-4DP**, Poly[imino(1,2-ethanediyl)], reaction products with (meth)acryloyl chloride **297732-08-2P**, Triacryloyl tris(2-aminoethyl)amine **297732-09-3P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (synthesis, characterization, and modeling of novel multifunctional acryloyl-based monomers and crosslinkers)

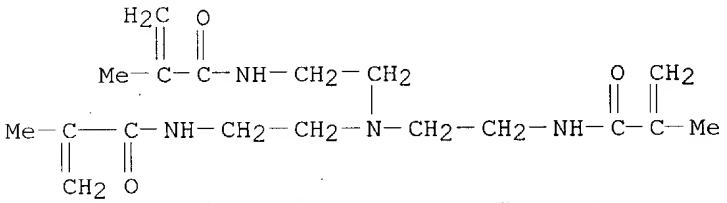
RN 26913-06-4 HCAPLUS
CN Poly[imino(1,2-ethanediyl)] (9CI) (CA INDEX NAME)



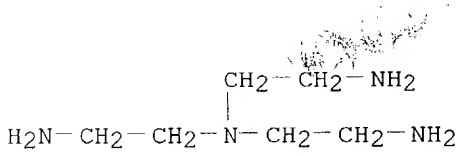
RN 297732-08-2 HCAPLUS
CN 2-Propenamide, N,N',N''-(nitrilotri-2,1-ethanediyl)tris- (9CI) (CA INDEX NAME)



RN 297732-09-3 HCAPLUS
CN 2-Propenamide, N,N',N''-(nitrilotri-2,1-ethanediyl)tris[2-methyl- (9CI) (CA INDEX NAME)



IT **4097-89-6,** Tris(2-aminoethyl)amine
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis, characterization, and modeling of novel multifunctional acryloyl-based monomers and crosslinkers)
RN 4097-89-6 HCAPLUS
CN 1,2-Ethanediamine, N,N-bis(2-aminoethyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:45279 HCAPLUS
DOCUMENT NUMBER: 136:243891
TITLE: Novel cross-linked homogeneous polyacrylamide gels with improved separation properties: investigation of

the cross-linker functionality

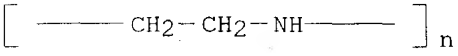
AUTHOR(S): Patras, Georgia; Qiao, Greg G.; Solomon, David H.
CORPORATE SOURCE: Polymer Science Group, Department of Chemical Engineering, University of Melbourne, Victoria, 3010, Australia

SOURCE: Electrophoresis (2001), 22(20), 4303-4310
CODEN: ELCTDN; ISSN: 0173-0835
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English

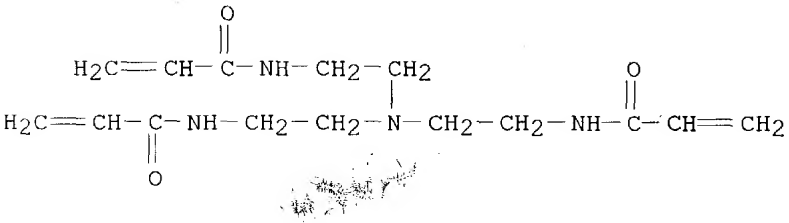
AB Polyacrylamide (PAAm) gels were synthesized using cross-linkers with their potential functionality (twice the number of double bonds of a cross-linker) varying from six to sixteen. Improved electrophoretic separation and highly desirable porosity and sieving properties were observed for most of the PAAm gels containing novel cross-linkers. An increase in the potential functionality of cross-linkers used in PAAm gels was an important factor, influencing the pore size and pore size distribution of the network.

IT **26913-06-4DP**, Poly[imino(1,2-ethanediyl)], (meth)acryloyl amide derivs. **297732-08-2P 297732-09-3P**
RL: ARU (Analytical role, unclassified); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent)
(cross-linked homogeneous polyacrylamide gels with improved separation properties: investigation of cross-linker functionality)

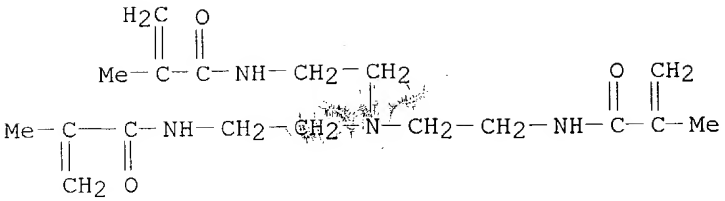
RN 26913-06-4 HCAPLUS
CN Poly[imino(1,2-ethanediyl)] (9CI) (CA INDEX NAME)



RN 297732-08-2 HCAPLUS
CN 2-Propenamide, N,N',N''-(nitrilotri-2,1-ethanediyl)tris- (9CI) (CA INDEX NAME)



RN 297732-09-3 HCAPLUS
CN 2-Propenamide, N,N',N''-(nitrilotri-2,1-ethanediyl)tris[2-methyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:903994 HCAPLUS
DOCUMENT NUMBER: 136:39534
TITLE: Hydrogel product for adsorption purposes
INVENTOR(S): Porath, Jerker; Ersson, Bo
PATENT ASSIGNEE(S): Swed.
SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001094007	A1	20011213	WO 2001-SE1278	20010607
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
SE 2000002152	A	20011209	SE 2000-2152	20000608
SE 516594	C2	20020205		
EP 1289651	A1	20030312	EP 2001-938915	20010607
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003186807	A1	20031002	US 2003-297544	20030528

PRIORITY APPLN. INFO.:

SE 2000-2152	A	20000608
US 2000-209999P	P	20000608
WO 2001-SE1278	W	20010607

AB The present invention relates to a hydrogel product for adsorption purposes where an in-water insol. support matrix is cross-linked with polymers which give rise to an in-water swellable adsorbent. Further the polymers are internally cross-linked through at least one crosslinking agent. As a support matrix an organic polymer is used or a combination of such, e.g. polysaccharide such as agar, cellulose, starch and so on, protein and components of protein and polysaccharide. The support matrix is substituted with a first, soluble polymer material chemical bound to the support matrix, whereupon addnl. polymer materials optionally are built-in in the primary synthesized support matrix complex through different kinds of cross-links, wherein optionally the support matrix is present in the

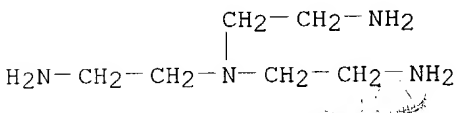
form of an acid- and base-stable residue. The hydrogel product may have the structural formula PYX1A1(Xz)Xn where P is the support matrix, Y is a nitrogen, sulfur or oxygen bridge, X1, Xn, Xz are the same or different di-, tri- or polyfunctional crosslinking agents, A1 is a water-soluble polymer material, n is a whole number where n ≥ 2; and z is 0 or a whole number where z ≥ 0. The hydrogel product may also have the structural formula PYX1A1(X2A2)XiAi(Xz)Xn where P is a support matrix, Y is a nitrogen, sulfur or oxygen bridge, X1, Xi, Xn, Xz are the same or different di-, tri- or polyfunctional crosslinking agents, A1, Ai are water-soluble polymer material, preferably the same or different kinds of cross-linked residues of amines, and n and i are whole nos. where i ≥ 2 and n ≥ 2; and z is 0 or a whole number where z ≥ 0. One or more of A1, Ai consist(s) of residues of a straight or branched polyalkylene amine, preferably oligo or polyethylene amine, or residues of other amines, the most preferred a polyalkylene diamine.

IT **9002-98-6**, Polyaziridine
RL: NUU (Other use, unclassified); USES (Uses)
(crosslinking agent in crosslinked polymeric hydrogel adsorbent)
RN 9002-98-6 HCAPLUS
CN Aziridine, homopolymer (9CI) (CA INDEX NAME)

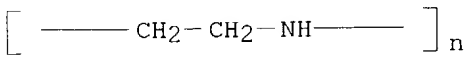
CM 1

CRN 151-56-4
CMF C2 H5 N

IT **4097-89-6**, Tris(2-aminoethyl)amine **26913-06-4**, Poly[imino(1,2-ethanediyl)]
RL: TEM (Technical or engineered material use); USES (Uses)
(polymer in crosslinked polymeric hydrogel adsorbent)
RN 4097-89-6 HCAPLUS
CN 1,2-Ethanediamine, N,N-bis(2-aminoethyl)- (9CI) (CA INDEX NAME)



RN 26913-06-4 HCAPLUS
CN Poly[imino(1,2-ethanediyl)] (9CI) (CA INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN

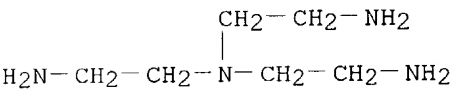
ACCESSION NUMBER: 1998:94747 HCAPLUS
DOCUMENT NUMBER: 128:223849
TITLE: Solid dispersion composition, photosensitive composition and photosensitive material for color proof
INVENTOR(S): Akiyama, Takeo; Watanabe, Shinya
PATENT ASSIGNEE(S): Konica Co., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 34 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10036648	A2	19980210	JP 1996-196432	19960725
PRIORITY APPLN. INFO.:			JP 1996-196432	19960725

AB The solid dispersion composition contains (1) a solid, (2) a polyester selected from (O-X-CO) or (O-Y-O-CO-X-CO) (X, Y = C2-18 alkylene or phenylene) and (3) a polyalkylene oxide compound The photosensitive composition contains the above solid, polyester and a photosensitive compound The solid may be a pigment or a dye. The photosensitive material for color proof using the photosensitive composition is also claimed.

IT **4097-89-6DP**, Tris(2-aminoethyl)amine, reaction product with polyester and benzoic acid **9002-98-6DP**, reaction product with polyester **26913-06-4DP**, Poly[imino(1,2-ethanediyl)], reaction product with polyester
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prepared and contained in solid dispersion photosensitive composition for making photosensitive material for color proof)

RN 4097-89-6 HCAPLUS
CN 1,2-Ethanediamine, N,N-bis(2-aminoethyl)- (9CI) (CA INDEX NAME)

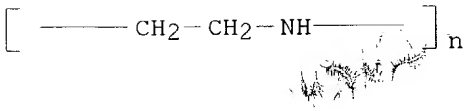


RN 9002-98-6 HCAPLUS
CN Aziridine, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 151-56-4
CMF C2 H5 N

RN 26913-06-4 HCAPLUS
CN Poly[imino(1,2-ethanediyl)] (9CI) (CA INDEX NAME)

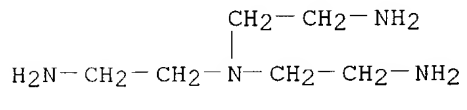


L14 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:187171 HCAPLUS
DOCUMENT NUMBER: 126:186683
TITLE: Proton Binding Characteristics of Branched Polyelectrolytes
AUTHOR(S): Borkovec, Michal; Koper, Ger J. M.
CORPORATE SOURCE: Swiss Federal Institute of Technology, ETH-ITO, Schlieren, 8952, Switz.
SOURCE: Macromolecules (1997), 30(7), 2151-2158
CODEN: MAMOBX; ISSN: 0024-9297
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Acid-base properties of branched, weak polyelectrolytes are analyzed theor. by means of Ising models with short-range interactions. Assuming that the structure of the branched polyelectrolyte can be approximated by the topol. of a tree (no closed loops), the Ising model with nearest neighbor pair interactions can be solved with exact recursion relations. We demonstrate that the branching structure has important implications for the protonation behavior of weak polyelectrolytes. For instance, the protonation a dendritic and a comblike polyelectrolyte proceed rather differently. Within this framework, the titration behavior of branched poly(ethylene imine) can be explained quant.

IT **4097-89-6**, Tris(2-aminoethyl)amine **9002-98-6** **26913-06-4**, Poly[imino(1,2-ethanediyl)]
RL: PRP (Properties)
(study of proton binding characteristics of branched or comblike polyelectrolytes by Ising model)

RN 4097-89-6 HCAPLUS
CN 1,2-Ethanediamine, N,N-bis(2-aminoethyl)- (9CI) (CA INDEX NAME)

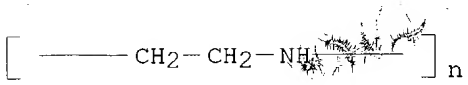


RN 9002-98-6 HCAPLUS
CN Aziridine, homopolymer (9CI) (CA INDEX NAME)

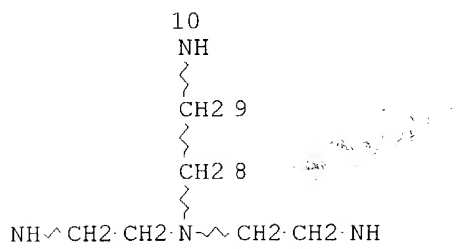
CM 1

CRN 151-56-4
CMF C2 H5 N

RN 26913-06-4 HCAPLUS
CN Poly[imino(1,2-ethanediyl)] (9CI) (CA INDEX NAME)



```
=> d que
L4          1121 SEA FILE=HCAPLUS ABB=ON  PLU=ON  POLYETHYLENIMINE/CT
L5             2 SEA FILE=REGISTRY ABB=ON  PLU=ON  POLYETHYLENIMINE/CN
L6           246 SEA FILE=REGISTRY ABB=ON  PLU=ON  (26913-06-4/CRN OR 9002-98-6/
                 CRN)
L7             7 SEA FILE=REGISTRY POLYLINK L5
L8          9470 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L7
L9          1121 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L4 AND L8
L11               STR
```




```
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  10

STEREO ATTRIBUTES: NONE
L13         1536 SEA FILE=REGISTRY SSS FUL L11
L14            7 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9 AND L13
L15          249 SEA FILE=REGISTRY ABB=ON  PLU=ON  (26778-51-8/CRN OR 26913-06-4
                 /CRN OR 30600-35-2/CRN OR 31855-23-9/CRN OR 49553-92-6/CRN OR
                 49553-93-7/CRN OR 9002-98-6/CRN)
L16           45 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L7 OR L5 OR L15 OR L6) AND
                 L13
L18       158546 SEA FILE=HCAPLUS ABB=ON  PLU=ON  DRUG DELIVERY SYSTEMS+OLD/CT
L19            7 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L16 AND L18
L20            4 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L16 AND (TRANSPORT? OR CARRY
                 OR CARRIE? OR TRANSFER?)
L21           10 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L19 OR L20
L22            8 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L21 NOT L14


=> d l22 ibib abs hitind hitstr 1-8

L22  ANSWER 1 OF 8  HCAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:         2003:850380  HCAPLUS
DOCUMENT NUMBER:          140:42559
TITLE:                    Living radical polymerization of vinyl chloride
                          initiated with iodoform and catalyzed by nascent
                          Cu0/tris(2-aminoethyl)amine or polyethyleneimine in
                          water at 25 °C proceeds by a new competing
                          pathways mechanism
AUTHOR(S):                Percec, Virgil; Popov, Anatoliy V.; Ramirez-Castillo,
                          Ernesto; Weichold, Oliver
```

CORPORATE SOURCE: Roy & Diana Vagelos Laboratories, Department of Chemistry, University of Pennsylvania, Philadelphia, PA, 19104-6323, USA
SOURCE: Journal of Polymer Science, Part A: Polymer Chemistry (2003), 41(21), 3283-3299
CODEN: JPACEC; ISSN: 0887-624X
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The first example of living radical polymerization of vinyl chloride **carried** out in water at 25° is reported. This polymerization was initiated by iodoform and catalyzed by nascent Cu0 produced by the disproportionation of CuI in the presence of strongly CuII binding ligands such as tris(2-aminoethyl)amine or polyethyleneimine. The resulting poly(vinyl chloride) was free of structural defects, had controlled mol. weight and narrow mol. weight distribution, contained two .apprx.CHCII active chain ends, and had a higher syndiotacticity (62%) than the one obtained by conventional free-radical polymerization at the same temperature (56%). This novel polymerization proceeds, most probably, by a combination of competitive pathways that involves activation by single electron **transfer** mediated by nascent Cu0 and degenerative chain **transfer.**

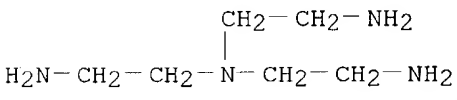
CC 35-4 (Chemistry of Synthetic High Polymers)

IT Bond energy
Chain **transfer**
Tacticity
(living radical polymerization of vinyl chloride initiated with iodoform and catalyzed by nascent Cu0/tris(2-aminoethyl)amine or polyethyleneimine)

IT 75-47-8, Iodoform **4097-89-6,** Tris(2-aminoethyl)amine
7440-50-8, Copper, uses **9002-98-6**
RL: CAT (Catalyst use); USES (Uses)
(living radical polymerization of vinyl chloride initiated with iodoform and catalyzed by nascent Cu0/tris(2-aminoethyl)amine or polyethyleneimine)

IT **4097-89-6,** Tris(2-aminoethyl)amine **9002-98-6**
RL: CAT (Catalyst use); USES (Uses)
(living radical polymerization of vinyl chloride initiated with iodoform and catalyzed by nascent Cu0/tris(2-aminoethyl)amine or polyethyleneimine)

RN 4097-89-6 HCAPLUS
CN 1,2-Ethanediamine, N,N-bis(2-aminoethyl)- (9CI) (CA INDEX NAME)



RN 9002-98-6 HCAPLUS
CN Aziridine, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 151-56-4
CMF C2 H5 N

REFERENCE COUNT: 86 THERE ARE 86 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:832633 HCAPLUS
DOCUMENT NUMBER: 137:338581
TITLE: Method for reducing copper levels and treating copper toxicosis
INVENTOR(S): Holmes-Farley, Stephen Randall
PATENT ASSIGNEE(S): Geltex Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002085383	A1	20021031	WO 2002-US11496	20020410
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002182168	A1	20021205	US 2002-125702	20020417
PRIORITY APPLN. INFO.:			US 2001-284445P P	20010418
			US 2001-305592P P	20010713

AB A method for reducing Cu levels in a patient and for treating Cu toxicosis and Wilson's Disease includes administering to the patient a therapeutically effective amount of an amine polymer, where the amine polymer is substantially water-insol. or nonabsorbent in the gastrointestinal tract. Examples of polymers that are useful includes Sevelamer HCl and Colesevelam. The use of amine polymers such as a crosslinked polymer (-(CH2CHn(CH)xNH)) unit and salts and copolymers, where n is pos. and x = 0 or 1-4.

IC ICM A61K031-785
ICS A61P003-00

CC 37-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 1

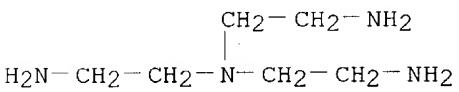
IT **Drug delivery systems**
Human
(chelating polyamine for therapeutically reducing copper levels)

IT 104-78-9DP, reaction products with divinylbenzene-Me methacrylate copolymer 106-89-8DP, Epichlorohydrin, reaction products with polyethyleneimine 107-15-3DP, Ethylenediamine, reaction products with divinylbenzene-Me methacrylate copolymer 111-40-0DP, Diethylenetriamine, reaction products with divinylbenzene-Me methacrylate copolymer

306-60-5DP, Agmatine, reaction products with crosslinked poly(N-hydroxysuccinimide) 2482-00-0DP, Agmatine sulfate, reaction products with crosslinked poly(methacryloyl chloride) 2582-30-1DP, Aminoguanidine bicarbonate, reaction products with crosslinked poly(N-hydroxysuccinimide) 4067-16-7DP, Pentaethylenehexamine, reaction products with crosslinked poly(N-hydroxysuccinimide) **4097-89-6DP**, Tris(2-aminoethyl)amine, reaction products with crosslinked poly(N-hydroxysuccinimide) **9002-98-6DP**, reaction products with epichlorohydrin **26338-45-4DP**, Aziridine, homopolymer, hydrochloride, methylated **26338-45-4P**, Aziridine, homopolymer, hydrochloride 34369-44-3P, Epichlorohydrin-pentaethylenehexamine copolymer 71550-12-4P, Poly (allylamine) hydrochloride **90451-16-4P**, Aziridine homopolymer sulfate 95522-45-5P, Epichlorohydrin-2-methylimidazole copolymer 130530-88-0P, 3-(Methacryloylamino)propyltrimethylammonium chloride-methylenebisacrylamide copolymer 132460-82-3P, Dimethylaminopropylacrylamide-methylenebisacrylamide copolymer 152751-57-0P, Allylamine hydrochloride-epichlorohydrin copolymer 162786-28-9P, Acryloyl chloride-aziridine copolymer 162786-38-1P 162786-39-2P 162786-40-5P 162786-41-6P 198343-02-1P, Allylamine hydrochloride-butanediol diglycidyl ether copolymer 198343-03-2P, Allylamine hydrochloride-ethanediol diglycidyl ether copolymer 198343-04-3P, Allylamine hydrochloride-dimethyl succinate copolymer 473911-93-2P
RL: IMF (Industrial manufacture); PREP (Preparation)
(chelating polyamine for therapeutically reducing copper levels)

IT **4097-89-6DP**, Tris(2-aminoethyl)amine, reaction products with crosslinked poly(N-hydroxysuccinimide) **9002-98-6DP**, reaction products with epichlorohydrin **26338-45-4DP**, Aziridine, homopolymer, hydrochloride, methylated **26338-45-4P**, Aziridine, homopolymer, hydrochloride **90451-16-4P**, Aziridine homopolymer sulfate
RL: IMF (Industrial manufacture); PREP (Preparation)
(chelating polyamine for therapeutically reducing copper levels)

RN 4097-89-6 HCAPLUS
CN 1,2-Ethanediamine, N,N-bis(2-aminoethyl)- (9CI) (CA INDEX NAME)



RN 9002-98-6 HCAPLUS
CN Aziridine, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 151-56-4
CMF C2 H5 N

RN 26338-45-4 HCAPLUS
CN Aziridine, homopolymer, hydrochloride (9CI) (CA INDEX NAME)

CM 1

CRN 9002-98-6
CMF (C2 H5 N)x
CCI PMS

CM 2

CRN 151-56-4
CMF C2 H5 N

RN 26338-45-4 HCAPLUS
CN Aziridine, homopolymer, hydrochloride (9CI) (CA INDEX NAME)

CM 1

CRN 9002-98-6
CMF (C2 H5 N)x
CCI PMS

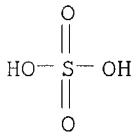
CM 2

CRN 151-56-4
CMF C2 H5 N

RN 90451-16-4 HCAPLUS
CN Aziridine, homopolymer, sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 7664-93-9
CMF H2 O4 S



CM 2

CRN 9002-98-6
CMF (C2 H5 N)x
CCI PMS

CM 3

CRN 151-56-4
CMF C2 H5 N

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:832631 HCAPLUS
DOCUMENT NUMBER: 137:333145
TITLE: Method for treating gout and binding uric acid
INVENTOR(S): Holmes-Farley, Stephen Randall; Burke, Steven K.
PATENT ASSIGNEE(S): Geltex Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002085381	A1	20021031	WO 2002-US11492	20020410
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1416942	A1	20040512	EP 2002-726732	20020410
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003039627	A1	20030227	US 2002-125685	20020417
PRIORITY APPLN. INFO.:			US 2001-284445P	P 20010418
			US 2001-305567P	P 20010713
			WO 2002-US11492	W 20020410

AB A method for treating gout and/or reducing serum uric acid levels in a patient is disclosed that includes administering to the patient a therapeutically effective amount of an amine polymer, for example, an aliphatic amine polymer. In one embodiment, the polymer binds to uric acid or a precursor thereof. Examples of polymers useful in an embodiment of the

invention include sevelamer hydrochloride and colesevelam. The invention includes the use of amine polymers such as a cross-linked polymer characterized by a repeat unit having the formula (-(CH2-CHn-(CH)x-NH)) and salts and copolymers thereof, where n is a pos. integer and x is zero or an integer between 1 and about 4. Also described is a use, for the manufacture of a medicament, of a polymer that binds serum uric acid in a patient.

IC ICM A61K031-785
ICS A61P003-00

CC 1-7 (Pharmacology)
Section cross-reference(s): 35

IT **Drug delivery systems**
Gout
Human
(method for treating gout and binding uric acid)

IT 106-89-8DP, Epichlorohydrin, reaction products with poly(ethylenimine)
2582-30-1DP, polyacrylamide derivs. **9002-98-6DP,**
Poly(ethylenimine), reaction products with epichlorohydrin 28408-65-3DP,
hydrolyzed 34369-44-3P 95522-45-5P 130530-88-0P 132460-82-3P
161035-25-2DP, agmatine amide derivs. 161035-25-2P 162786-28-9P
162786-34-7P 162786-36-9DP, reaction products with agmatine
162786-36-9P 162786-37-0P 162786-38-1P 162786-39-2P 162786-40-5P
162786-41-6P 198343-02-1P 198343-03-2P 198343-04-3P 201610-46-0P
201610-47-1P 473721-42-5P 473721-43-6P 473721-46-9P
473911-93-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(method for treating gout and binding uric acid)

IT 60-35-5, Acetamide, reactions 75-07-0, Acetaldehyde, reactions
104-78-9 306-60-5D, Agmatine, polyacrylamide derivs. 814-68-6,
Acryloyl chloride 2482-00-0D, Agmatine sulfate, reaction products with methacrylic polymers 6066-82-6, N-Hydroxysuccinimide **9002-98-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(method for treating gout and binding uric acid)

IT **9002-98-6DP**, Poly(ethylenimine), reaction products with epichlorohydrin **201610-47-1P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(method for treating gout and binding uric acid)

RN 9002-98-6 HCAPLUS
CN Aziridine, homopolymer (9CI) (CA INDEX NAME)

CM 1

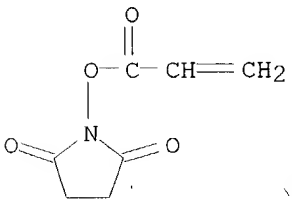
CRN 151-56-4
CMF C2 H5 N

RN 201610-47-1 HCAPLUS
CN 2-Propenamide, N,N'-methylenebis-, polymer with N,N-bis(2-aminoethyl)-1,2-

ethanediamine and 1-[(1-oxo-2-propenyl)oxy]-2,5-pyrrolidinedione (9CI) (CA INDEX NAME)

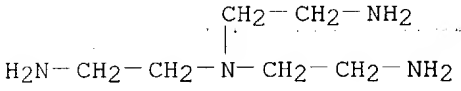
CM 1

CRN 38862-24-7
CMF C7 H7 N O4



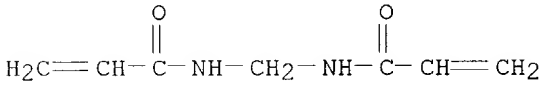
CM 2

CRN 4097-89-6
CMF C6 H18 N4



CM 3

CRN 110-26-9
CMF C7 H10 N2 O2



IT **9002-98-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(method for treating gout and binding uric acid)
RN 9002-98-6 HCAPLUS
CN Aziridine, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 151-56-4
CMF C2 H5 N

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:832630 HCAPLUS
DOCUMENT NUMBER: 137:333144
TITLE: Method for treating gout and reducing serum uric acid
INVENTOR(S): Holmes-Farley, Stephen Randall; Burke, Steven K.
PATENT ASSIGNEE(S): Geltex Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002085380	A1	20021031	WO 2002-US11491	20020410
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002187120	A1	20021212	US 2002-125793	20020417
PRIORITY APPLN. INFO.:			US 2001-284445P P	20010418
			US 2001-305568P P	20010713

AB A method for treating gout and/or reducing serum uric acid levels in a patient is disclosed that includes administering to the patient a therapeutically effective amount of an amine polymer; for example, an aliphatic amine polymer. Examples of polymers useful in the invention are sevelamer hydrogen chloride and colesevelam. The invention includes the use of amine polymers such as a cross-linked polymer characterized by a repeat unit having the formula (-(CH2-CHn-(CH2)x-NH2)) and salts and copolymers thereof, where n is a pos. integer and x is zero or an integer between 1 and about 4. Also described is a use, for the manufacture of a medicament, of a polymer that reduces serum uric acid levels in a patient.

IC ICM A61K031-785
ICS A61P003-00

CC 1-7 (Pharmacology)
Section cross-reference(s): 35

IT **Drug delivery systems**
Gout
Human
(method for treating gout and reducing serum uric acid)

IT 2482-00-0DP, Agmatine sulfate, reaction products with acrylic polymers 2582-30-1DP, Aminoguanidine bicarbonate, reaction products with acrylic polymers **9002-98-6DP**, Poly(ethylenimine), reaction products with epichlorohydrin 34369-44-3P 95522-45-5P 130530-88-0P 132460-82-3P 161035-25-2DP, agmatine amide derivs. 161035-25-2P 162786-28-9P 162786-34-7P 162786-36-9DP, reaction products with agmatine 162786-36-9P 162786-37-0P 162786-38-1P 162786-39-2P 162786-40-5P 162786-41-6P 162786-44-9P 198343-02-1P 198343-03-2P 198343-04-3P

201610-46-0P **201610-47-1P** 473721-42-5P 473721-43-6P
473721-46-9P 473911-93-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(method for treating gout and reducing serum uric acid)

IT 60-35-5, Acetamide, reactions 75-07-0, Acetaldehyde, reactions
104-78-9 306-60-5D, Agmatine, reaction products with acrylic polymers
814-68-6, Acryloyl chloride 4067-16-7, Pentaethylene hexamine
6066-82-6, N-Hydroxysuccinimide **9002-98-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(method for treating gout and reducing serum uric acid)

IT **9002-98-6DP**, Poly(ethylenimine), reaction products with epichlorohydrin **201610-47-1P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(method for treating gout and reducing serum uric acid)

RN 9002-98-6 HCAPLUS
CN Aziridine, homopolymer (9CI) (CA INDEX NAME)

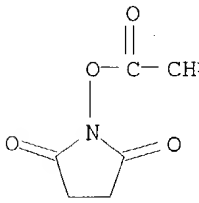
CM 1

CRN 151-56-4
CMF C2 H5 N

RN 201610-47-1 HCAPLUS
CN 2-Propenamide, N,N'-methylenebis-, polymer with N,N-bis(2-aminoethyl)-1,2-ethanediamine and 1-[(1-oxo-2-propenyl)oxy]-2,5-pyrrolidinedione (9CI) (CA INDEX NAME)

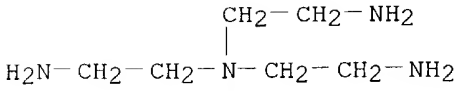
CM 1

CRN 38862-24-7
CMF C7 H7 N O4



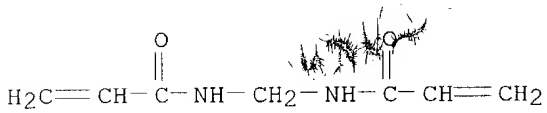
CM 2

CRN 4097-89-6
CMF C6 H18 N4



CM 3

CRN 110-26-9
CMF C7 H10 N2 O2



IT **9002-98-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(method for treating gout and reducing serum uric acid)
RN 9002-98-6 HCAPLUS
CN Aziridine, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 151-56-4
CMF C2 H5 N

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:832627 HCAPLUS
DOCUMENT NUMBER: 137:320319
TITLE: Method for lowering serum glucose
INVENTOR(S): Burke, Steven K.
PATENT ASSIGNEE(S): Geltex Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002085377	A1	20021031	WO 2002-US11493	20020410
WO 2002085377	C1	20021128		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1392331 A1 20040303 EP 2002-726733 20020410
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

US 2002187121 A1 20021212 US 2002-125700 20020417

PRIORITY APPLN. INFO.: US 2001-284445P P 20010418
US 2001-305564P P 20010713
WO 2002-US11493 W 20020410

AB A method for treating hyperglycemia and/or reducing serum glucose levels in a patient that includes administering to the patient a therapeutically effective amount of an amine polymer is disclosed. In one embodiment, the amine polymer is aliphatic Examples of polymers useful in an embodiment of the invention include sevelamer hydrogen chloride and colesevelam. The invention includes the use of amine polymers such as a cross-linked polymer characterized by a repeat unit having the formula: and salts and copolymers thereof, where n is a pos. integer and x is zero or an integer between 1 and about 4. Also described is a use, for the manufacture of a medicament, of a polymer that lowers serum glucose.

IC ICM A61K031-75
ICS A61P003-00

CC 1-10 (Pharmacology)

IT **Drug delivery systems**
(amine polymers; aliphatic amine polymers for lowering serum glucose in a patient)

IT 306-60-5DP, polyacrylamide derivs. 2482-00-0DP, polyacrylamide derivs. 2582-30-1DP, polyacrylamide derivs. 9017-37-2P, Divinylbenzene-methyl methacrylate copolymer 25610-84-8P 28408-65-3DP, hydrolyzed 34369-44-3P 57491-00-6P 62238-80-6P, Polydiallylamine 71550-12-4P 130530-88-0P 152460-82-3P 152751-57-0P 161035-25-2DP, agmatine amide derivs. 161035-25-2P 162786-28-9P 162786-34-7P 162786-35-8P 162786-36-9DP, agmatine amide derivs. 162786-36-9P 162786-37-0P 162786-38-1P 162786-39-2P 162786-40-5P 162786-41-6P 162786-44-9P 198343-02-1P 198343-03-2P 198343-04-3P 201610-46-0P **201610-47-1P** 473721-42-5P 473721-43-6P 473721-44-7DP, guanidine amide derivs. 473721-44-7P 473721-46-9P 473721-47-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(aliphatic amine polymers for lowering serum glucose in a patient)

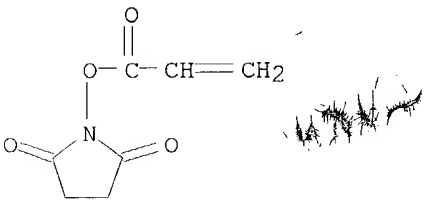
IT 106-89-8, Epichlorohydrin, biological studies 7647-01-0, Hydrogen chloride, biological studies **9002-98-6** 26336-38-9, Polyvinylamine 182815-43-6, Colesevelam
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(aliphatic amine polymers for lowering serum glucose in a patient)

IT **201610-47-1P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(aliphatic amine polymers for lowering serum glucose in a patient)

RN 201610-47-1 HCAPLUS
CN 2-Propenamide, N,N'-methylenebis-, polymer with N,N-bis(2-aminoethyl)-1,2-ethanediamine and 1-[(1-oxo-2-propenyl)oxy]-2,5-pyrrolidinedione (9CI) (CA INDEX NAME)

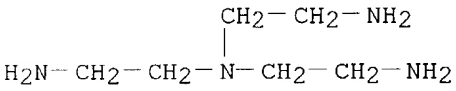
CM 1

CRN 38862-24-7
CMF C7 H7 N O4



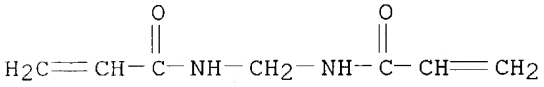
CM 2

CRN 4097-89-6
CMF C6 H18 N4



CM 3

CRN 110-26-9
CMF C7 H10 N2 O2



IT **9002-98-6**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(aliphatic amine polymers for lowering serum glucose in a patient)
RN 9002-98-6 HCAPLUS
CN Aziridine, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 151-56-4
CMF C2 H5 N

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:521725 HCAPLUS
DOCUMENT NUMBER: 137:98996
TITLE: Preparation of tetraether lipid derivatives and liposomes containing tetraether lipid derivatives and lipid agglomerates and their usage for drug targeting
INVENTOR(S): Kuehl, Christine; Tewes, Bernhard; Hagen, Martin; Gropp, Felix; Littger, Ralf; Marx, Uwe
PATENT ASSIGNEE(S): Bernina Biosystems G.m.b.H., Germany
SOURCE: PCT Int. Appl., 88 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002053554	A2	20020711	WO 2001-EP15356	20011228
WO 2002053554	A3	20020919		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10065561	A1	20020711	DE 2000-10065561	20001228
EP 1347964	A2	20031001	EP 2001-985932	20011228
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: DE 2000-10065561 A 20001228
WO 2001-EP15356 W 20011228

OTHER SOURCE(S): MARPAT 137:98996

AB The invention relates to novel tetraether lipid derivs. which can be used for producing liposomes and lipid agglomerates with improved stability which are simple and reliable. The invention also relates to liposomes and lipid agglomerates with an increased lifespan. Thus tetraether lipids DGTEs (glycerol-dialkyl-glycerol-tetraethers) were isolated from Sulfolobus acidocaldarius fermentation broth. DGTE derivs. were prepared that were used for further synthesis. DGTE diacyl chloride was reacted with MeO-PEG-NH2; the Bis-(Methoxy-PEG)-tetraether product was incorporated in liposomes with phosphatidylcholine. The stability of the liposomes was tested by the inclusion of carboxyfluorescein; liposomes containing 5% of Bis-(Methoxy-PEG)-tetraether showed substantially lower release of the dye in blood serum than liposomes without the tetraether derivative In another

experiment DGTE-trimethylamine phosphate derivative was prepared and used with phosphatidylcholine in oral drug delivery liposomes for the somatostatin-analog peptide octreotide. In a third experiment CHO cells were transfected with plasmids that were included in liposomes composed of a Bis[3-(dimethylamino)-propyl]-amine derivative of DGTE, phosphatidylcholine, cholesterol, and dioleylphosphatidylethanolamine.

IC ICM C07D323-00
ICS A61K009-127

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 16, 28

IT **Drug delivery systems**
(enteric; preparation of tetraether lipid derivs. and liposomes containing tetraether lipid derivs. and lipid agglomerates and usage for drug targeting)

IT **Drug delivery systems**
(injections, i.m.; preparation of tetraether lipid derivs. and liposomes containing tetraether lipid derivs. and lipid agglomerates and usage for drug targeting)

IT **Drug delivery systems**
(injections, i.v.; preparation of tetraether lipid derivs. and liposomes containing tetraether lipid derivs. and lipid agglomerates and usage for drug targeting)

IT **Drug delivery systems**
(injections, s.c.; preparation of tetraether lipid derivs. and liposomes containing tetraether lipid derivs. and lipid agglomerates and usage for drug targeting)

IT **Drug delivery systems**
(liposomes; preparation of tetraether lipid derivs. and liposomes containing tetraether lipid derivs. and lipid agglomerates and usage for drug targeting)

IT **Drug delivery systems**
(oral; preparation of tetraether lipid derivs. and liposomes containing tetraether lipid derivs. and lipid agglomerates and usage for drug targeting)

IT Coating process
Drug delivery systems
Fermentation
Gene therapy
Liquid chromatography
Plasmid vectors
Stability
Sulfolobus acidocaldarius
Transformation, genetic
(preparation of tetraether lipid derivs. and liposomes containing tetraether lipid derivs. and lipid agglomerates and usage for drug targeting)

IT **Drug delivery systems**
(pulmonary; preparation of tetraether lipid derivs. and liposomes containing tetraether lipid derivs. and lipid agglomerates and usage for drug targeting)

IT **Transferrins**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sequences from, ligands; preparation of tetraether lipid derivs. and liposomes containing tetraether lipid derivs. and lipid agglomerates and usage for drug targeting)

IT **Drug delivery systems**
(topical; preparation of tetraether lipid derivs. and liposomes containing tetraether lipid derivs. and lipid agglomerates and usage for drug

targeting)

IT 57-88-5, Cholesterol, biological studies 2462-63-7, DOPE
9002-98-6 25104-18-1, Poly-lysine 137056-72-5, DC-Chol
144189-73-1, DOTAP 178532-92-8, DOSPER
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(preparation of tetraether lipid derivs. and liposomes containing tetraether lipid derivs. and lipid agglomerates and usage for drug targeting)

IT **161038-11-5P 441349-44-6P** 441349-47-9P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of tetraether lipid derivs. and liposomes containing tetraether lipid derivs. and lipid agglomerates and usage for drug targeting)

IT **4097-89-6**, TREN 4167-02-6, 2-Bromoethyl dichlorophosphate
6711-48-4 10025-87-3, Phosphoric trichloride 80506-64-5 99560-06-2
121893-20-7 441349-35-5 441349-37-7 441349-39-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of tetraether lipid derivs. and liposomes containing tetraether lipid derivs. and lipid agglomerates and usage for drug targeting)

IT **9002-98-6**
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(preparation of tetraether lipid derivs. and liposomes containing tetraether lipid derivs. and lipid agglomerates and usage for drug targeting)

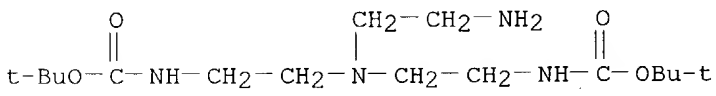
RN 9002-98-6 HCAPLUS
CN Aziridine, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 151-56-4
CMF C2 H5 N

IT **161038-11-5P 441349-44-6P**
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of tetraether lipid derivs. and liposomes containing tetraether lipid derivs. and lipid agglomerates and usage for drug targeting)

RN 161038-11-5 HCAPLUS
CN 10-Oxa-2,5,8-triazadodecanoic acid, 5-(2-aminoethyl)-11,11-dimethyl-9-oxo-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 441349-44-6 HCAPLUS
CN 10-Oxa-2,5,8-triazadodecanoic acid, 5,5'-[[(2R,7R,11R,15S,19S,22S,26S,30R,

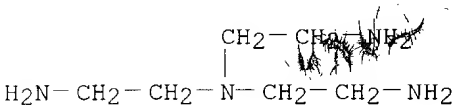
34R,38R,43R,47R,51S,55S,58S,62S,66R,70R)-7,11,15,19,22,26,30,34,43,47,51,55,58,62,66,70-hexadecamethyl-1,4,37,40-tetraoxacyclodoheptacontane-2,38-diyl]bis(carbonylimino-2,1-ethanediyl)]bis[11,11-dimethyl-9-oxo-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT **4097-89-6**, TREN
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of tetraether lipid derivs. and liposomes containing tetraether lipid derivs. and lipid agglomerates and usage for drug targeting)

RN 4097-89-6 HCAPLUS

CN 1,2-Ethanediamine, N,N-bis(2-aminoethyl)- (9CI) (CA INDEX NAME)



L22 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:311301 HCAPLUS
DOCUMENT NUMBER: 137:389091
TITLE: Various cationic **carriers** for in vitro transfection of tumor and endothelial cell lines
AUTHOR(S): Zemlinska, Barbara; Sochanik, Aleksander; Missol-Kolka, Ewa; Szala, Stanislaw
CORPORATE SOURCE: Department of Molecular Biology, Center of Oncology-Maria Sklodowska-Curie Memorial Institute, Gliwice, 44-101, Pol.
SOURCE: Acta Biochimica Polonica (2002), 49(1), 285-290
CODEN: ABPLAF; ISSN: 0001-527X
PUBLISHER: Polish Biochemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We compared the efficiency of in vitro DNA **transfer** into selected tumor and endothelial cell lines using complexes of plasmid DNA and cationic **carriers**: DDAB/DOPE, DC-Chol/DOPE, Arg-Chol/DOPE, Gly-Chol/DOPE, Arg-Gly-Chol/DOPE, BGTC/DOPE, and PEI. The best **carriers** for transfecting the majority of tested cells lines at optimized **carrier**-to-DNA weight ratios were PEI and BGTC/DOPE.

CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 3

ST tumor endothelium transfection plasmid DNA cationic **carrier**

IT Bladder, neoplasm
(carcinoma; cationic **carriers** for transfection of tumor and endothelial cell lines)

IT Genetic vectors
Human
Melanoma
Neoplasm
Plasmid vectors
Transformation, genetic
(cationic **carriers** for transfection of tumor and endothelial cell lines)

IT Blood vessel
(endothelium; cationic **carriers** for transfection of tumor and

endothelial cell lines)

IT 3700-67-2, Dimethyldioctadecyl ammonium bromide 4004-05-1, DOPE
9002-98-6 73670-26-5 137056-72-5 **182056-06-0**
475645-85-3 475645-86-4
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cationic **carriers** for transfection of tumor and endothelial cell lines)

IT **9002-98-6 182056-06-0**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cationic **carriers** for transfection of tumor and endothelial cell lines)

RN 9002-98-6 HCAPLUS
CN Aziridine, homopolymer (9CI) (CA INDEX NAME)

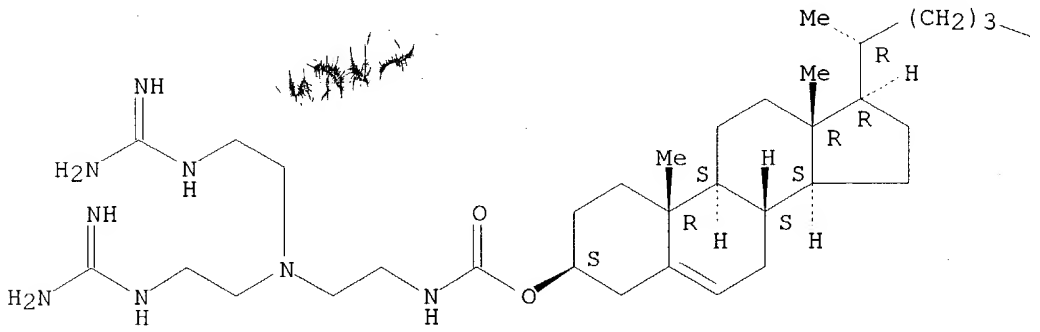
CM 1

CRN 151-56-4
CMF C2 H5 N

RN 182056-06-0 HCAPLUS
CN Cholest-5-en-3-ol (3β)-, [2-[bis[2-[(aminoiminomethyl)amino]ethyl]amino]ethyl]carbamate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

CHMe2

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:608924 HCAPLUS
DOCUMENT NUMBER: 133:203820
TITLE: Intravascular delivery of non-viral nucleic acid
INVENTOR(S): Wolff, Jon A.; Monahan, Sean D.; Hagstrom, James E.; Slattum, Paul M.; Budker, Vladimir G.; Rozema, David B.
PATENT ASSIGNEE(S): Mirus Corp., USA
SOURCE: PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 15
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000050617	A1	20000831	WO 2000-US4521	20000222
W: JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1161547	A1	20011212	EP 2000-911912	20000222
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
WO 2003040375	A1	20030515	WO 2002-US17556	20020530
W: JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
US 2003216347	A1	20031120	US 2003-600098	20030620

PRIORITY APPLN. INFO.:

US 1999-121730P	P	19990226
US 1999-146564P	P	19990730
US 1999-447966	A3	19991123
WO 2000-US4521	W	20000222
US 2001-12804	A	20011106

AB Disclosed is a process for transfecting genetic material into a mammalian cell to alter endogenous properties of the cell. The process comprises designing a polynucleotide for transfection. Then the polynucleotide is inserted into a mammalian vessel such as a tail vein or artery. Prior to insertion, subsequent to insertion, or concurrent with insertion the permeability of the vessel is increased thereby the genetic material is delivered to the parenchymal cell altering endogenous properties of the cell. The naked polynucleotide is complexed prior to delivery with amphipathic compds., polymers, or other nonviral vectors. Syntheses are described for the preparation of several activated disulfide-containing co-monomers and of pH-cleavable polymers for intracellular compartment release.

IC ICM C12N015-85
ICS A61K009-127; A61K048-00; C07H021-04
CC 3-2 (Biochemical Genetics)
Section cross-reference(s): 35
IT **Drug delivery systems**
(injections, i.v.; intravascular delivery of non-viral nucleic acid)
IT 9002-89-5DP, Polyvinyl alcohol, reaction products with 5-oxohexanoic acid 25104-18-1DP, Poly(L-lysine), reaction products with citraconic anhydride or dimethylmaleic anhydride 25619-78-7DP, Poly(L-tyrosine), reaction products with citraconic anhydride 25667-16-7DP, reaction products with citraconic anhydride 26742-84-7DP, Poly(vinyl phenyl ketone), reaction products with glycerol or with glycerol and succinic anhydride

38000-06-5DP, Poly(L-lysine), reaction products with citraconic anhydride or dimethylmaleic anhydride 59269-51-1DP, Polyvinylphenol, reaction products with citraconic anhydride 209517-47-5P 289888-07-9P 289888-08-0P 289888-09-1P **289888-10-4P** 289888-11-5P **289888-12-6P** 289888-14-8P **289888-15-9P** 289888-17-1P 289888-18-2P
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(chemical synthesis of polymers for DNA complexation; intravascular delivery of non-viral nucleic acid)

IT 56-81-5, 1,2,3-Propanetriol, reactions 56-89-3, L-Cystine, reactions 69-78-3, 5,5'-Dithiobis(2-nitrobenzoic acid) 105-83-9 109-78-4, 3-Hydroxypropionitrile 111-30-8, Pentanedial 112-57-2, Tetraethylenepentamine 616-02-4, Citraconic anhydride 766-39-2, 2,3-Dimethylmaleic anhydride 3128-06-1, 4-Acetylbutyric acid 4067-16-7, Pentaethylenehexamine **4097-89-6**, Tris(2-aminoethyl)amine 4741-99-5, N,N'-Bis(2-aminoethyl)-1,3-propanediamine 6066-82-6, N-Hydroxysuccinimide 7209-38-3, 1,4-Bis(3-aminopropyl)piperazine 9002-89-5, Polyvinyl alcohol 10389-65-8 13551-09-2 25104-18-1, Poly(L-lysine 25619-78-7, Poly(L-tyrosine) 25667-16-7 26742-84-7, Poly(vinyl phenyl ketone) 38000-06-5, Poly(L-lysine) 52328-05-9, O-Methylisourea hydrogen sulfate 58632-95-4, 2-tert-Butoxycarbonyloxyimino)-2-phenylacetonitrile 59269-51-1, Polyvinylphenol 289888-16-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(chemical synthesis of polymers for DNA complexation; intravascular delivery of non-viral nucleic acid)

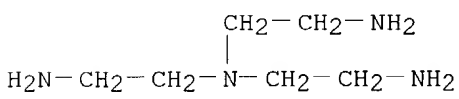
IT **9002-98-6D**, complexes with DNA
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(intravascular delivery of non-viral nucleic acid)

IT **289888-10-4P 289888-12-6P 289888-15-9P**
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(chemical synthesis of polymers for DNA complexation; intravascular delivery of non-viral nucleic acid)

RN 289888-10-4 HCAPLUS
CN Benzoic acid, 3,3'-dithiobis[6-nitro-, polymer with N-(2-aminoethyl)-N'-[2-[(2-aminoethyl)amino]ethyl]-1,2-ethanediamine and N,N-bis(2-aminoethyl)-1,2-ethanediamine (9CI) (CA INDEX NAME)

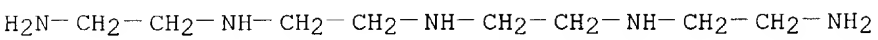
CM 1

CRN 4097-89-6
CMF C6 H18 N4



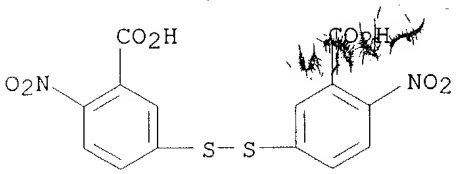
CM 2

CRN 112-57-2
CMF C8 H23 N5



CM 3

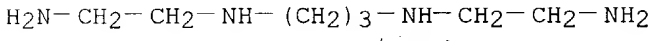
CRN 69-78-3
CMF C14 H8 N2 O8 S2



RN 289888-12-6 HCAPLUS
CN Benzoic acid, 3,3'-dithiobis[6-nitro-, polymer with N,N-bis(2-aminoethyl)-1,2-ethanediamine and N,N'-bis(2-aminoethyl)-1,3-propanediamine (9CI) (CA INDEX NAME)

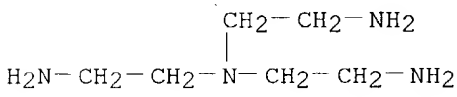
CM 1

CRN 4741-99-5
CMF C7 H20 N4



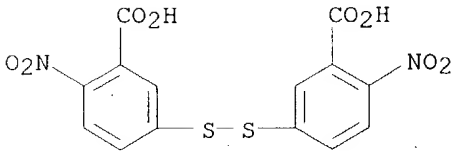
CM 2

CRN 4097-89-6
CMF C6 H18 N4



CM 3

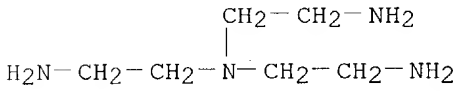
CRN 69-78-3
CMF C14 H8 N2 O8 S2



RN 289888-15-9 HCAPLUS
CN Benzoic acid, 3,3'-dithiobis[6-nitro-, polymer with N,N-bis(2-aminoethyl)-1,2-ethanediamine and 3,6,9,12-tetraazatetradecane-1,14-diamine (9CI) (CA INDEX NAME)

CM 1

CRN 4097-89-6
CMF C6 H18 N4



CM 2

CRN 4067-16-7
CMF C10 H28 N6

PAGE 1-A

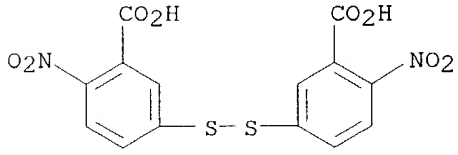
$H_2N-CH_2-CH_2-NH-CH_2-CH_2-NH-CH_2-CH_2-NH-CH_2-CH_2-NH-CH_2-$

PAGE 1-B

$-CH_2-NH_2$

CM 3

CRN 69-78-3
CMF C14 H8 N2 O8 S2

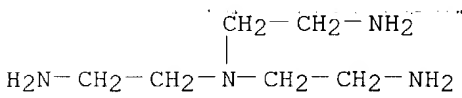


IT **4097-89-6**, Tris(2-aminoethyl)amine
RL: RCT (Reactant); RACT (Reactant or reagent)

(chemical synthesis of polymers for DNA complexation; intravascular delivery of non-viral nucleic acid)

RN 4097-89-6 HCAPLUS

CN 1,2-Ethanediamine, N,N-bis(2-aminoethyl)- (9CI) (CA INDEX NAME)



IT **9002-98-6D**, complexes with DNA

RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(intravascular delivery of non-viral nucleic acid)

RN 9002-98-6 HCAPLUS

CN Aziridine, homopolymer (9CI) (CA INDEX NAME)

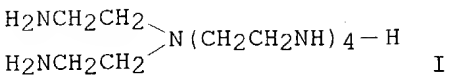
CM 1

CRN 151-56-4

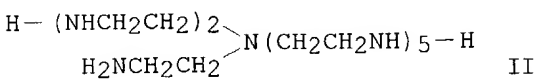
CMF C2 H5 N

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

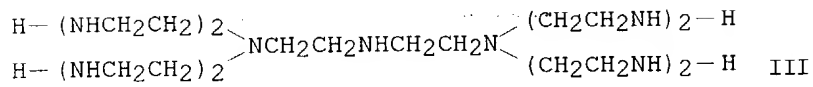
```
=> d que
L1                STR
                                                      21
                                                      NH
                                                      ⌇
                                                      ⌇
                                                      CH2 20
                                                      ⌇
                                                      ⌇
                                                      CH2 19
                                                      ⌇
                                                      ⌇
CH2 CH2 N~~ CH2 CH2 NH~ CH2 CH2 N~~ CH2 CH2 NH~ CH2 CH2 N~~ CH2 CH2 NH2
1   2   3   4   5   6   7   8   9   10  11  12  13  14  15  16  17  18

NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  21

STEREO ATTRIBUTES: NONE
L2             1 SEA FILE=ZREGISTRY SSS FUL L1
L3             2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L2


=> d l3 ibib abs hitstr 1-2

L3   ANSWER 1 OF 2  HCAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:         1987:4518  HCAPLUS
DOCUMENT NUMBER:          106:4518
TITLE:                    Higher polyethylenepolyamines
INVENTOR(S):              Zgoda, Marian M.; Petri, Stanislaw
PATENT ASSIGNEE(S):       Akademia Medyczna, Lodz, Pol.
SOURCE:                   Pol., 4 pp.
                          CODEN: POXXA7
DOCUMENT TYPE:            Patent
LANGUAGE:                 Polish
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.      DATE
     ---------------      ----   --------    -------------------  --------
     PL 127609             B1    19831130    PL 1979-215818       19790524
PRIORITY APPLN. INFO.:                       PL 1979-215818       19790524
GI
```



I



II



III

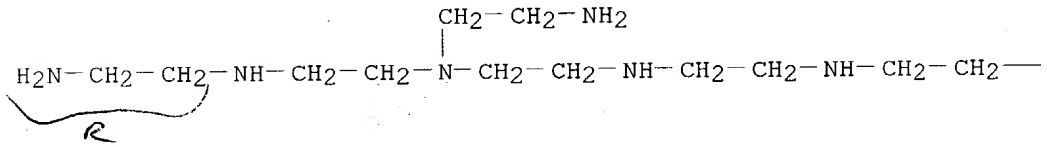
AB Higher polyethylenepolyamines I, II, and III are prepared by condensation of linear polyamines H2N(CH2CH2NH)nH (where n = 2, 3, or 4) with bis(2-chloroethyl)amine hydrochloride (IV) in MeOH in a N atmospheric I, II, and III have cytostatic and cytotoxic properties (no data). Thus, 2.18 g IV was added to 56.96 g diethylenetriamine dissolved in 0.1 dm3 MeOH during 2 h. Condensation was done 24 h in N at 80-90°. The condensation product was cooled to 0-2° and salted out by using a KOH solution in MeOH. After drying, MeOH was distilled The resulting 43.3 g I was purified on the Sephadex LH-20 mol. sieve.

IT **87998-19-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as cytostatic agent)

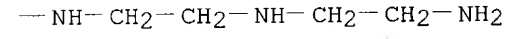
RN 87998-19-4 HCAPLUS

CN 3,6,9,12,15,18-Hexaazaeicosane-1,20-diamine, 6-(2-aminoethyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L3 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1984:5765 HCAPLUS

DOCUMENT NUMBER: 100:5765

TITLE: Polyethylenepolyamines. Part IV. Products of condensation of polyamines of NH2-(CH2CH2NH)n-H type (n = 2, 3, 4) with bis(2-chloroethyl)amine hydrochloride

AUTHOR(S): Zgoda, Marian; Petri, Stanislaw

CORPORATE SOURCE: Fac. Pharm., Sch. Med., Lodz, 90145, Pol.

SOURCE: Polish Journal of Chemistry (1982), 56(4-5-6), 833-9

CODEN: PJCHDQ; ISSN: 0137-5083
DOCUMENT TYPE: Journal
LANGUAGE: English

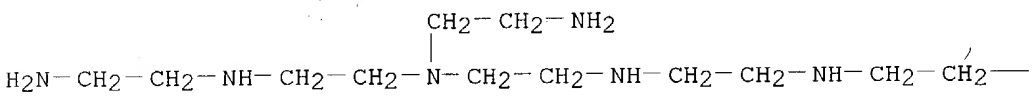
AB Reaction of (ClCH2CH2)2NH.HCl with H2N(CH2CH2NH)nH (n = 2,3,4) gave, as isolated higher products, (H2NCH2CH2)2N(CH2CH2NH)4H, H(NHCH2CH2)2(H2NCH2CH2)N(CH2CH2NH)5H, and an amine C20H53N11, for which three possible isomeric structures were proposed.

IT **87998-19-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 87998-19-4 HCAPLUS

CN 3,6,9,12,15,18-Hexaazaeicosane-1,20-diamine, 6-(2-aminoethyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B